Montana Board of Oil and Gas Conservation
Environmental Assessment

Operator: Denbury Onshore, LLC
Well Name/Number: Pine Unit 32X-23A
Location: SW NE Section 23 T11N R57E
County: Wibaux **, MT; Field (or Wildcat)** Pine

Air Quality

(possible concerns)
Long drilling time: No, 30-35 days drilling time.
Unusually deep drilling (high horsepower rig): No, triple drilling rig for 9,700' TD, vertical development well.
Possible H2S gas production: Yes, possible H2S gas.
In/near Class I air quality area: No Class I air quality area in area of review.
Air quality permit for flaring/venting (if productive): Yes, DEQ air quality permit required under 75-2-211.

Mitigation:
X Air quality permit (AQB review)
__ Gas plants/pipelines available for sour gas
__ Special equipment/procedures requirements
__ Other:

Comments: No special concerns – using triple derrick drilling rig to drill a vertical 9,700' TD Winnipeg Formation well test. If existing pipeline for gas in the area, gas can be gathered or if no gathering system nearby, gas can be flared under Board Rule 36.22.1220.

Water Quality

(possible concerns)
Salt/oil based mud: Use freshwater and freshwater mud system on surface hole and main hole will utilize oil based invert mud to TD.
High water table: No, high water table anticipated at this location.
Surface drainage leads to live water: No, closest drainages are unnamed ephemeral tributary drainages to Cabin Creek, about 1/4 of a mile northwest and ¼ of a mile to the southeast from this location.
Water well contamination: None, closest water well is a shallow stock water well about ¾ of a mile to the northwest from this location. Surface casing will be set below all known water wells in the area. Surface hole will be drilled with freshwater and freshwater muds. Surface casing will be set to1900' and cemented back to surface.
Porous/permeable soils: No, sandy clay soils.
Class I stream drainage no

Mitigation:
X Lined reserve pit
X Adequate surface casing

__ Berms/dykes, re-routed drainage
__ Closed mud system
__ Off-site disposal of solids/liquids (in approved facility)
__ Other: _____

Comments: 1900' of surface casing cemented to surface adequate to protect freshwater zones. Also, fresh water mud systems to be used on surface hole. Reserve pit liquids to be recycled or hauled to a commercial disposal. Solids will be left on site in the lined reserve pit after being allowed to dry, pit liner folded over the top of the solids, minimum of 4' of spoil dirt to fill pit over the top of the cuttings.

Soils/Vegetation/Land Use

(possible concerns)

Steam crossings: None.

High erosion potential: Yes possible on cut slopes, moderate cut, up to 18.7' and small fill, up to 6.0', required.

Loss of soil productivity : None, location to be restored after drilling well, if well is nonproductive. If productive unused portion of drillsite will be reclaimed.

Unusually large wellsite: Large, 270'X400' location size required.

Damage to improvements: Slight, surface use is grassland with scrub pines, used for grazing.

Conflict with existing land use/values: Slight

Mitigation

__ Avoid improvements (topographic tolerance)
__ Exception location requested
_X_ Stockpile topsoil
__ Stream Crossing Permit (other agency review)
_X_ Reclaim unused part of wellsite if productive
__ Special construction methods to enhance reclamation
__ Other _____

Comments: All of the access will be over existing county roads and existing lease roads. About 144' of new road will be constructed into this location. No special concerns.

Health Hazards/Noise

(possible concerns)

Proximity to public facilities/residences: Oil field buildings and facilities are the only structures nearby. Unknown if they are any residences nearby. Either way the drilling of this well should not pose any problems.

Possibility of H2S: Yes H2S possible.

Size of rig/length of drilling time: Triple drilling rig 30 to 35 days drilling time

Mitigation:

_X_ Proper BOP equipment

__ Topographic sound barriers
__H2S contingency and/or evacuation plan
__ Special equipment/procedures requirements
__ Other:_____

Comments: ____No special concerns. Proper BOP stack (5000 psig annular with double blind rams and pipe rams) and surface casing should be able to control any problems that occurs.

Wildlife/recreation

(possible concerns)

Proximity to sensitive wildlife areas (DFWP identified): None, identified

Proximity to recreation sites: _None identified__

Creation of new access to wildlife habitat: _No____

Conflict with game range/refuge management: _No___

Threatened or endangered Species: __Species identified as threatened or endangered are the Pallid Sturgeon, Interior Lease Tern and Whooping Crane. Candidate species are the Greater Sage Grouse and the Sprague's Pipit. MTFWP Natural Heritage Tracker website lists four (4) species of concern. They are the Golden Eagle, Greater Sage Grouse, Black-billed Cuckoo and the Red-headed woodpecker. NH Tracker website lists three (3) Potential Species of Concern: Chimney Swift, Eastern-Screech Owl and the Tennessee Warbler

Mitigation:
__ Avoidance (topographic tolerance/exception)
__ Other agency review (DFWP, federal agencies, DSL)
__ Screening/fencing of pits, drillsite
__ Other: ___

Comments: __The surface ownership is private land. There may be species of concern that maybe impacted by this wellsite. We ask the operator to consult with the surface owner as to what he would like done, if a species of concern is discovered at this location. The Board of Oil & Gas has no jurisdiction over private surface lands.

Historical/Cultural/Paleontological

(possible concerns)

Proximity to known sites __None identified._____

Mitigation
__ avoidance (topographic tolerance, location exception)
__ other agency review (SHPO, DSL, federal agencies)
__ Other:_____

Comments: On private surface land. There may be possible historical/cultural/paleontological sites that maybe impacted by this wellsite. We ask the operator to consult with the surface owner as to his desire to preserve

these sites or not, if they are found during construction of the wellsite. The Board of Oil & Gas has no jurisdiction over private surface lands.

Social/Economic

(possible concerns)

__ Substantial effect on tax base
__ Create demand for new governmental services
__ Population increase or relocation
Comments: No concerns, an oil well test within the Pine Oil Field.

Remarks or Special Concerns for this site

Well is a 9,700' vertical Winnipeg Formation well test in the Pine oil field.

Summary: Evaluation of Impacts and Cumulative effects

No long term impacts expected. Some short term impacts will occur.

I conclude that the approval of the subject Notice of Intent to Drill (does/**does not**) constitute a major action of state government significantly affecting the quality of the human environment, and (does/**does not**) require the preparation of an environmental impact statement.

Prepared by (BOGC): /s/Steven Sasaki
(title:) Chief Field Inspector
Date: May 1, 2012

Other Persons Contacted:

Montana Bureau of Mines and Geology, GWIC website
(Name and Agency)
Wibaux County water wells
(subject discussed)
May 1, 2012
(date)

US Fish and Wildlife, Region 6 website
(Name and Agency)
ENDANGERED, THREATENED, PROPOSED AND CANDIDATE SPECIES
MONTANA COUNTIES, Wibaux County
(subject discussed)

May 1, 2012_____
(date)

Montana Natural Heritage Program Website (FWP)
(Name and Agency)
Heritage State Rank= S1, S2, S3, T11N R57E
(subject discussed)

May 1, 2012_____
(date)

If location was inspected before permit approval:
Inspection date: _____
Inspector: _____
Others present during inspection:_____